

CLAIMS:

1. An oblique contact ball bearing, comprising:

an outer ring (7, 10);

an inner ring (8, 11); and

5 a ball placed between the outer ring (7, 10) and the inner ring (8, 11), wherein

a straight line connecting between a point in contact with a raceway (22, 21) of the outer ring (7, 10) and a point in contact with a raceway of the inner ring (8, 11) is inclined to a plane orthogonal to an axis of the outer ring, and wherein

a curvature radius of the raceway (22, 21) is reduced toward a bottom of the raceway (22, 21) in an axial cross-section of the outer ring (7, 10).

15 2. A turbocharger comprising:

a housing (4);

a turbine shaft (3) having a turbine-side impeller (6) and a compressor-side impeller (5) respectively on both sides of the turbine shaft (3); and

20 an oblique contact ball bearing (1, 2) for supporting the turbine shaft on the housing, wherein the oblique contact ball bearing (1, 2) comprises:

an outer ring (7, 10);

an inner ring (8, 11); and

25 a ball placed between the outer ring (7, 10) and

the inner ring (8, 11), wherein

a straight line connecting between a point in contact with a raceway (22, 21) of the outer ring (7, 10) and a point in contact with a raceway of the inner ring (8, 11) is inclined to a plane orthogonal to an axis of the outer ring, and wherein

a curvature radius of the raceway (22, 21) is reduced toward a bottom of the raceway (22, 21) in an axial cross-section of the outer ring (7, 10).

10 3. The oblique contact ball bearing as set forth in Claim 1, wherein

the raceway (22, 21) is a part of an ellipse, whose major axis direction is a radial direction of the outer ring (7, 10), in the axial cross-section of the outer ring (7, 10).

4. The turbocharger as set forth in Claim 2, wherein

the raceway (22, 21) is a part of an ellipse, whose major axis direction is a radial direction of the outer ring (7, 10), in the axial cross-section of the outer ring (7, 10).